

Listing of claims

1. (Currently Amended) A fuel transport tube having improved fuel vapor permeation, said tube comprising consisting of:

an inner conductive high density polyethylene tubular structure having an inner surface and an outer surface;

an aluminum barrier layer having an inner surface and an outer surface disposed on the outer surface of said inner high density polyethylene tubular structure; and

an outer non-conductive polymeric tubular structure having an inner surface and an outer surface disposed on the outer surface of said aluminum layer, wherein said outer non-conductive polymeric tubular structure is a thermoplastic or rubber material selected from the group consisting of chlorinated polyethylene; chlorosulfonated polyethylene; styrene-butadiene rubber; butadiene-nitrile rubber; nitrile-polyvinyl chloride; EPDM, neoprene; vinylethylene-acrylic rubber; acrylic rubber; epichlorohydrin rubber; copolymers of epichlorohydrin and ethylene oxide; polychloroprene rubber; polyvinyl chloride; ethylene-propylene copolymers; ultra high molecular weight polyethylene; high density polyethylene; chlorobutyl rubber; and blends thereof; and

a tie layer between at least one layer of:

(1) the outer surface of said conductive inner high density polyethylene tubular structure and the inner surface of said aluminum barrier layer, and

(2) the outer surface of said aluminum barrier layer and the inner surface of said non-conductive polymeric tubular structure.

2. (Original) The tube of claim 1, wherein said inner conductive high density polyethylene tubular structure has a thickness of about 0.2 to 2 mm.

3. (Original) The tube of claim 1, wherein said inner conductive high density polyethylene tubular structure has a thickness of about 0.2 to 1.5 mm.

4. (Original) The tube of claim 1, wherein said inner conductive high density polyethylene tubular structure contains a conductive agent.

5. (Original) The tube of claim 4, wherein said conductive agent is (a) carbon or (b) a metal selected from the group consisting of copper, silver, gold, nickel, and alloys thereof.

6. (Previously presented) The tube of claim 5, wherein said conductive agent is carbon in the form of carbon fibers or carbon fibrils.

7. (Original) The tube of claim 4, wherein said conductive agent is present in an amount of about 2 to 20 weight percent.

8. (Original) The tube of claim 1, wherein said aluminum barrier layer has a thickness of about 0.02 to 1.5 mm.

9. (previously Presented) The tube of claim 1, wherein said aluminum barrier layer is applied to said outer surface of said inner conductive high density polyethylene tubular structure by helical wrapping or by tensional radial curling.

10. (Previously Presented) The tube of claim 1, wherein said outer non-conductive polymeric tubular structure has a wall thickness of about 0.25 to 1.5 mm.

11-12 (Canceled)

13. (Previously Presented) The tube of claim 1 wherein said outer non-conductive polymeric tubular structure is constructed of high density polyethylene.

14. (Currently Amended) The tube of claim 1, ~~further comprising a~~ wherein said tie layer is disposed between the outer surface of said conductive inner high density polyethylene tubular structure and the inner surface of said aluminum barrier layer.

15. (Original) The tube of claim 14, wherein said tie layer is an anhydride-modified linear low density polyethylene.

16. (Currently Amended) The tube of claim 1, ~~further comprising a~~ wherein said tie layer is disposed between the outer surface of said aluminum barrier layer and the inner surface of said non-conductive polymeric tubular structure.

17. (Original) The tube of claim 16, wherein said tie layer is an anhydride-modified linear low density polyethylene.

18. (Currently Amended) A fuel transport tube having improved fuel vapor permeation, said tube comprising consisting of in order:

a conductive inner high density polyethylene tubular structure containing about 2 to 20% carbon in the form of fibers or fibrils, said conductive inner high density polyethylene tubular structure having a thickness of about 0.2 to 1.5 mm;

a first anhydride-modified linear low density polyethylene tie layer;

an aluminum barrier layer having an inner surface and an outer surface, said aluminum barrier layer having a thickness of about 0.02 to 1.5 mm;

a second anhydride-modified linear low density polyethylene tie layer; and

an outer non-conductive high density polyethylene tubular structure, said outer non-conductive high density polyethylene tubular structure having a thickness of about 0.25 to 1.5 mm.

19-34 (Canceled)